



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/628,007

07/25/2003

Peter Sui Lun Fong

SMART-005BCB

3950

7590

10/01/2004

Mark B. Garred
STETINA BRUNDA GARRED & BRUCKER
Suite 250
75 Enterprise
Aliso Viejo, CA 92656

EXAMINER

LA, ANH V

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,007

Applicant(s)

FONG, PETER SUI LUN

Examiner

Anh V La

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/06/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 7-11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruzic in view of Kelly.

Regarding claim 1, Ruzic discloses a sensor for use in an interactive electronic device, the sensor comprising a housing having a side wall 38 defining an inner surface, a top plate 32 attached to the side wall and defining an inner surface, a bottom plate 44 attached to the side wall and defining an inner surface, the inner surfaces of the side wall and the top and bottom plates collectively defining an interior chamber, at least one bottom pad disposed on the inner surface of the bottom plate (see pad contained connections of 46, 48 in figure 1), at least one switch 146, 152, 156, communicating with the interior chamber, and a trigger mechanism 140, 150, disposed within the interior chamber and rotatably connected to the housing, the sensor being operative to generate a plurality of different states corresponding to respective positions of the

housing relative to a reference plane, the states being generated by the movement of the housing relative to the reference plane and the resultant contact between the trigger mechanism and the switch (column 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40). Ruzic does not clearly disclose at least one top pad disposed on the inner surface of the top plate. Kelly teaches the use of at least one top pad 18A, 18B, 16, disposed on an inner surface of the top plate (figures 12-14). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include at least one top pad disposed on the inner surface of the top plate to the sensor of Ruzic as taught by Kelly for the purpose of effectively monitoring the positions of the device.

Regarding claim 8, Ruzic discloses a sensor for use in an interactive electronic device, the sensor comprising a housing having a side wall 38 defining an inner surface, a top plate 32 attached to the side wall and defining an inner surface, a bottom plate 44 attached to the side wall and defining an inner surface, the inner surfaces of the side wall and the top and bottom plates collectively defining an interior chamber, at least one bottom pad disposed on the inner surface of the bottom plate (see pad contained connections of 46, 48 in figure 1), at least one switch 146, 152, 156, communicating with the interior chamber, and a trigger mechanism 140, 150, disposed within the interior chamber and rotatably connected to the housing, the sensor being operative to generate a plurality of different states corresponding to respective positions of the housing relative to a reference plane, the states being generated by the movement of the housing relative to the reference plane and the resultant contact between the trigger

Art Unit: 2636

mechanism and the switch (column 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40). Ruzic does not clearly disclose at least one top inner pad and at least one top outer pad disposed on the inner surface of the top plate in juxtaposed relation to each other, and at least one bottom inner pad and at least one bottom outer pad disposed on the inner surface of the bottom plate in juxtaposed relation to each other. Kelly teaches the use of at least one top inner pad 16 and at least one top outer pad 18B disposed on an inner surface of a top plate in juxtaposed relation to each other (figures 12-14). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include at least one top inner pad and at least one top outer pad disposed on the inner surface of the top plate in juxtaposed relation to each other, and at least one bottom inner pad and at least one bottom outer pad disposed on the inner surface of the bottom plate in juxtaposed relation to each other to the sensor of Ruzic as taught by Kelly for the purpose of effectively monitoring the positions of the device.

Regarding claims 2 and 9, Ruzic discloses a programmable electronic circuitry 62 in electrical communication with the sensor and operative to translate at least some of the states generated by the sensor into respective effects (col. 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

Regarding claims 3 and 10, Ruzic discloses the electronic circuitry 62 being programmed to compare the at least two successive states generated by the sensor to each other (col. 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

Regarding claims 4 and 11, Ruzic discloses the electronic circuitry 62 being programmed to produce a selected effect upon successive states of a prescribed sequence being transmitted thereto from the sensor (col. 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

Regarding claims 7 and 14, Ruzic discloses the switch being in electrical communication with the bottom pad (fig. 1-2).

4. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruzic in view of Kelly and Harrison.

Regarding claims 17-18, Ruzic discloses a sensor for use in an interactive electronic device, the sensor comprising a housing having a side wall 38 defining an inner surface, a top plate 32 attached to the side wall and defining an inner surface, a bottom plate 44 attached to the side wall and defining an inner surface, the inner surfaces of the side wall and the top and bottom plates collectively defining an interior chamber, at least one bottom pad disposed on the inner surface of the bottom plate (see pad contained connections of 46, 48 in figure 1), at least one switch 146, 152, 156, communicating with the interior chamber, and a trigger mechanism 140, 150, disposed within the interior chamber and rotatably connected to the housing, the sensor being operative to generate a plurality of different states corresponding to respective positions of the housing relative to a reference plane, the states being generated by the movement of the housing relative to the reference plane and the resultant contact

Art Unit: 2636

between the trigger mechanism and the switch (column 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

Ruzic does not clearly disclose at least one top pad disposed on the inner surface of the top plate (claim 17) and at least two (claim 17) or three (claim 18) housings attached to each other.

Kelly teaches the use of at least one top pad 18A, 18B, 16, disposed on an inner surface of the top plate (figures 12-14). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include at least one top pad disposed on the inner surface of the top plate to the sensor of Ruzic as taught by Kelly for the purpose of effectively monitoring the positions of the device.

Harrison teaches the use of at least two or three housings 16 attached to each other. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include at least two or three housings attached to each other the sensor of Ruzic as taught by Harrison for the purpose of effectively monitoring the positions of the device.

Regarding claim 19, Ruzic discloses a programmable electronic circuitry 62 in electrical communication with the sensor and operative to translate at least some of the states generated by the sensor into respective effects (col. 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

Regarding claim 20, Ruzic discloses the electronic circuitry 62 being programmed to compare the at least two successive states generated by the sensor to each other (col. 2, lines 15-67, col. 3, lines 1-50, col. 5, line 1- col. 6, line 40).

5. Claims 5-6, 12, 13, 15, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Double Patenting

6. Claims 1-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 6,437,703. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-11 of U.S. Patent No. 6,437,703 contains all the limitations cited in claims 1-20 of the present invention.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2636

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ho and Nakayama teach position sensing systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh V La whose telephone number is (571) 272-2970.

The examiner can normally be reached on Mon-Fri from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ANH V. LA
PRIMARY EXAMINER

Anh V La
Primary Examiner
Art Unit 2636

AI
September 23, 2004